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AF 6069879

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BAIR-2T,5P 46

SUBJECT (Descriptive title. Use individual reports for separate subjects)

IRRIGATION AND NAVIGATION CANALS IN THE TURKMENSKAYA SSR

SUMMARY (Give summary which highlights the salient factors of narrative report. Begin narrative text on AF Form 112a unless report can be fully stated on AF Form 112. List inclosures, including number of copies)

APPROVED:

Capt USAF for
WRIGHT J SHEPARD
Colonel, USAF
Commander

1 cy (2 Incl)

3-01-1200 10/55
756.122 32N
(+1)
785.4 32N

2 INCLS
#1 - Photo of Sketch of Canal
#2 - Photo of View of Canal.

ABC

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I. Ref is made to Incl #1, this Rpt, sketch of the Main Turkmen Canal, and to Incl #2, this Rpt, view of the Main Turkmen Canal.

A water reservoir has been completed on the TEDZHEN River in the TURKMENSKAYA SSR in 1950. As of Oct 55 irrigation of the UST-URT and KARA-KUM deserts was intended by two canals: the Great KARA-KUM Canal, intended 900 km long, in the south and SW, and the main Turkmen Canal, intended 1,100 km long, in the north and NE. Preparatory work was already completed. A model of the canal was completed in the hydraulic laboratory in MOSKVA (5545N-3735E). Another large-scale model of a part of the Turkmen Canal and the AMU-DAR'YA River, occupying an area of 3 hectares, has been completed in KUPAVNA (5548N-3811E). The constr of the Great KARA-KUM Canal will be conducted in three stages. The first one will include a 400 km long canal section extending from KERKI (3752N-6512E) to the MURGAB River construction of which has been started from both ends of the route and should be completed by the end of 1956, as intended. As of Oct 55, locks near KERKI and embankments in the area of the KELIF lakes were under constr. Water was immediately introduced into completed sections of the canal.

The second section of the canal, to be built after completion of the first one, will extend from the MURGAB River to the DEDZHEN River.

The third section will pass by the foot of KOPET-DAG Mountain Range, go on to ASHKHABAD (3757N-5823E) and reach BAKHARDEN (3829N-5725E). The project on the first section provides that water from the AMU-DAR'YA River will flow into the drainage area of the MURGAB River, to irrigate 170,000 hectares of land.

On the left bank of the AMU-DAR'YA River, at the TAKHIYA-TASH rocky island near NUKUS (4228N-5935E), the TAKHIYA-TASH Dam and hydro electric power plant will be erected as the principal part of the main Turkmen Canal. Irrigation canals will branch off on both banks of the river, including the main Turkmen Canal which is to draw 400 cu m of water per second from the reservoir, later on 600 cu meters per second. The water is to fill the old KHOREZM irrigation canals, go on to the CHARYSHLA Wells and enter the well-preserved, dry bed of UZBOY River. The dry SARYKAMYSH Lake will be deviated by an artificial, 400 km long bed, to avoid filling of the lake, which would take 15 years, and evaporation.

From the CHARYSHLA Wells, water will be conducted by the UZBOY River bed, latter requiring only minor constr work, to KEL-KOR (coord unknown). The latter route will extend over 500 km. The last 200 km section will extend paralelly to the existing RR line toward the KRASNOVODSK (4000N-5300E) Bay of the CASPIAN Sea and will be purely a navigation canal with a minimal flow of water. Two reservoirs and hydro electric power plants are provided on the UZBOY route. From one of the intended reservoirs, at a place where the KARA-KUM and UST-URT deserts are meeting, another 400 km long canal, carrying 200-300 cu m of water per second, will start south toward KYZYL-ARVAT (3858N-5615E), bend off toward KAZANDZHIK (3916N-5532E) and continue southward toward the ATREK River. In the area of the YASKHAN Lakes on the main Turkmen Canal route, the second hydro electric power station and a port are to be constructed. Water mains, totaling 1,000 km, with residual purifiers, will supply water from the YASKHAN reservoir to industrial establishments, RRs and populated places. Another minor irrigation canal will be constructed there to moisture the areas of NEBIT-DAG (3930N-5422E) and KRASNOVODSK. As intended, a total of 300 million cu m of earth will be moved during the constr of the canals. An artificial improvement of canal bottoms and banks by depositing silt soils on them or soaking them with liquid water glass and calcium chloride is intended. In order to keep the canal system from obstruction by deposits of sand and silt, of which the AMU-DAR'YA River carries 50 million cu m annually, a system of sedimentary purifiers will be built. For protection from wind-blown sands, canals and populated places will be lined with 2.5 km wide zones of woods and lines of trees on canal banks, the planted area totaling 500,000 hectares. The main Turkmen Canal will be navigable in its

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entirety. After the completion of the canal, a continuous water route MOSKVA - VOLGA - CASPIAN SEA - KRASNOVODSK - CHARDZHOU (3908N-6336E) will be in operation. Water mains are to conduct drinking water to Turkmenian industrial centers: KRASNOVODSK, NEBIT-DAG, CHELEKEN (3927N-5308E), and KAR-BOGAZ-GOL (4103N-5256E). The planned hydro electric power plants will supply 100,000 kilowatts of energy. (It is not clear whether total or single output).

II. Translator: SULATYCKYJ Roman (FN) Editor: PETAK

for W. K. CARREL
Major, USAF
Detachment Commander
DET #4, 7056 Air INTSERON

(signature) Capt USAF

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